

REMARKS/ARGUMENTS

Prior to entry of this amendment, claims 1-20 are currently pending in the subject application. By the instant amendment, claims 1 and 18 are amended. Claim 1 is the sole independent claim.

Applicants appreciate the Examiner's acknowledgement of applicants' claim for foreign priority and receipt of a certified copy of the priority document.

Applicants further appreciate the Examiner's acceptance of the drawings filed on November 17, 2003. However, as set forth below, applicants respectfully request clarification of the status of the drawings in the next Office action.

Applicants also appreciate the Examiner's consideration of applicants' Information Disclosure Statement dated November 17, 2003.

Claims 1-20 are presented to the Examiner for further prosecution on the merits.

A. Introduction

In the outstanding Office action, mailed August 3, 2005, the Examiner objected to the drawings, rejected claim 18 under 35 U.S.C. § 112, second paragraph, as being indefinite, rejected claims 1-7, 10-15 and 17-19 under 35 U.S.C. § 102(b) as being anticipated by European patent publication no. WO 01/43857 to Ehrfeld et al. ("the Ehrfeld et al. reference"), and rejected claims 8, 9, 16 and 20 under 35 U.S.C. § 103(a) as being unpatentable over the Ehrfeld et al. reference in view of U.S. Patent No. 6,001,267 to Os ("the Os reference").

The Examiner and applicants' representative discussed the outstanding objections and rejections during a personal interview on October 25, 2005, at the U.S. Patent and Trademark

Office, a summary of which appears below. Applicants' appreciate the Examiner's comments and interest in advancing prosecution of the subject application.

B. Applicant Initiated Interview Summary

1. Brief Description of any Exhibit Shown

No exhibit was shown or demonstrated during the interview of October 25, 2005.

2. Identification of the Claims Discussed

The Examiner and applicants' representative discussed claims 1 and 18.

3. Identification of the Specific Prior Art Discussed

The Examiner and applicants' representative discussed the Ehrfeld et al. reference.

4. Identification of the Proposed Amendments

The Examiner and applicants' representative discussed possible amendments to claim 1 that might more particularly recite aspects of the present invention. The Examiner and applicants' representative agreed that the outstanding rejections based on the Ehrfeld et al. reference could be overcome by amending claim 1. In particular, it was agreed that amending claim 1 to recite "gas channels having a full extent defined by a surface of the injector and a surface of the reaction chamber," or similar wording, would overcome the rejection of these claims over the cited prior art. Further, it was agreed that amending claim 18 to delete the word "type" would overcome the rejection of this claim under the second paragraph of 35 U.S.C. § 112.

5. Summary of the Arguments Presented to the Examiner

Applicants' representative presented arguments that the claims need not be amended to overcome the outstanding rejections under 35 U.S.C. §§ 102(b) and 103(a) because the original claim language sufficiently defined the subject matter of the present invention over

the cited prior art. In particular, applicants' representative argued that the recitation in claim 1 of "a manifold disposed between the wall of the reaction chamber and the injector" sufficiently defined the subject matter of the present invention over the Ehrfeld et al. reference.

6. General Indication of Other Pertinent Matters Discussed

The Examiner indicated that further searching would be required even if the amendments to the claims, as set forth in subsection 4, above, were made.

7. General Outcome of the Interview

The Examiner and applicants' representative agreed that the amendments to the claims set forth in subsection 4, above, would overcome the outstanding rejections based on the cited prior art.

C. Objection to the Drawings

In the outstanding Office action, the Examiner objected to the drawings, asserting that the drawings must show every feature of the invention specified in the claims and that the claimed feature "a manifold disposed between the wall of the reaction chamber and the injector" is absent from the drawings. In the objection, the Examiner stated that "Applicant, in all presented figures, only shows a manifold 120/220/320/420 disposed between the wall 183 of the reaction chamber 180 and the inside surface of the injector 140/240/340/440. The manifold is disposed, in all figures, inside the injector, not "between" the injector and a wall of the reactor." *Office action of August 3, 2005, at paragraph 2, page 2 (emphasis in original)*. Applicants respectfully disagree.

In particular, applicants direct the Examiner to FIGS. 7 and 8 of the application as originally filed, which are reproduced below for the Examiner's convenience.

FIG. 7

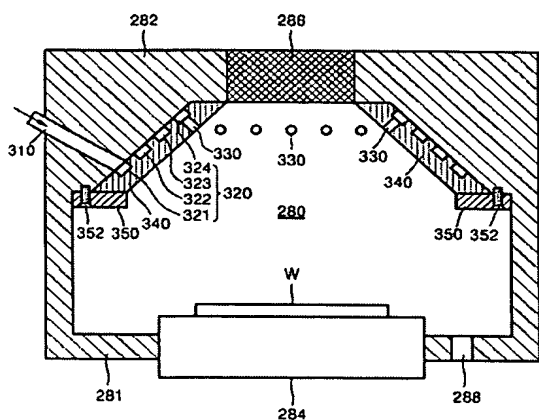
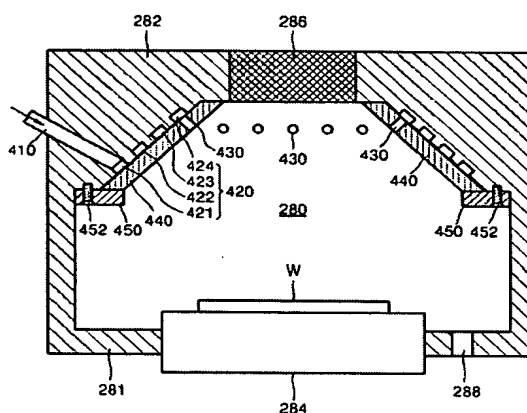


FIG. 8



As set forth in the specification as originally filed, elements 320 of FIG. 7 and 420 of FIG. 8 are manifolds. In particular, in FIG. 8, applicants note that “a plurality of levels of gas channels 421-424 constituting a manifold 420 are formed in the shape of a groove having a predetermined depth on a sloped inner surface of the upper wall 282 of the reaction chamber 280.” *See the specification as originally filed, paragraph [0053].* That is, FIG. 8 illustrates an embodiment wherein a manifold is formed in the shape of a groove on the sloped inner surface of the reaction chamber wall. Accordingly, applicants respectfully submit that the embodiment illustrated in FIG. 8 is not characterized as having the manifold 420 “inside” the injector 440. Rather, the manifold 420 is between the injector 440 and the wall 282 of the reaction chamber 280. Therefore, applicants respectfully request that this objection be reconsidered and withdrawn.

Finally, applicants note that, while issuing the objection discussed above, the Examiner indicated that the drawings filed on November 17, 2003, have been accepted. Thus, the status of the drawings is somewhat unclear. Accordingly, applicants respectfully request, in the next Office action, that the Examiner clarify the status of the drawings.

D. Asserted Indefiniteness Rejection of Claim 18

In the outstanding Office action, the Examiner rejected claim 18 under 35 U.S.C. § 112, second paragraph, as being indefinite, asserting that “the term ‘showerhead like’ in claim 18 is a relative term . . . The term ‘showerhead like’ is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.”

By the instant amendment, claim 18 is amended. As an initial matter, applicants note that claim 18 recites “a showerhead type injector” rather than “showerhead like.” In view of the Examiner’s comments during the interview, applicants have deleted the term “type” from claim 18. Accordingly, applicants respectfully request that the rejection of claim 18 be reconsidered and withdrawn.

E. Asserted Anticipation Rejection of Claims 1-7, 10-15 and 17-19

In the outstanding Office action, the Examiner rejected claims 1-7, 10-15 and 17-19 under 35 U.S.C. § 102(b) as being anticipated by the Ehrfeld et al. reference. By the instant amendment, claim 1 is amended to more particularly recite aspects of the present invention. Applicants respectfully submit that the Ehrfeld et al. reference fails to disclose, or even suggest, each and every element of claim 1 for at least the reasons set forth below.

Claim 1, as currently amended recites, in part,

gas channels arranged on at least two levels in the manifold . . .
wherein the gas channels have a full extent defined by a surface
of the injector and a surface of the reaction chamber.

In the outstanding Office action, the Examiner asserted that the Ehrfeld et al. reference discloses gas channels in the form of “bifurcations” (not labeled) in FIGS. 2a and 2b. *Office action of August 3, 2005, at paragraph 7, page 4.* However, the Ehrfeld et al. reference

discloses that the bifurcations are formed between surfaces of the injector alone, and not between a surface of the injector and a surface of the reaction chamber, as presently recited in claim 1. That is, the Ehrfeld et al. reference discloses, at most, that the full extent of the bifurcations is defined by opposing surfaces of adjacent injector wedge sections 2a-2d. Accordingly, applicants respectfully submit that the Ehrfeld et al. reference fails to anticipate claim 1.

Applicants respectfully submit that claim 1 is allowable for at least the reasons set forth above. Claims 2-20 depend, either directly or indirectly, from claim 1 and are believed to be similarly allowable. Accordingly, applicants respectfully request that this rejection be reconsidered and withdrawn.

F. Asserted Obviousness Rejection of Claims 8, 9, 16 and 20

In the outstanding Office action, the Examiner rejected claims 8, 9, 16 and 20 under 35 U.S.C. § 103(a) as being unpatentable over the Ehrfeld et al. reference in view of the Os et al. reference. Applicants note that claims 8, 9, 16 and 20 depend, either directly or indirectly, from claim 1. Applicants respectfully submit that the Os et al. reference fails to disclose, or even suggest, the elements noted above as missing from the Ehrfeld et al. reference.

Accordingly, applicants submit that claims 8, 9, 16 and 20 are allowable for at least the reasons set forth above. Therefore, applicants respectfully request that this rejection be reconsidered and withdrawn.

G. Conclusion

Since the cited prior art relied on to reject the claims of the subject application fails to anticipate or render obvious the present invention, applicants respectfully submit that claims 1-20 are in condition for allowance, and a notice to that effect is respectfully requested.

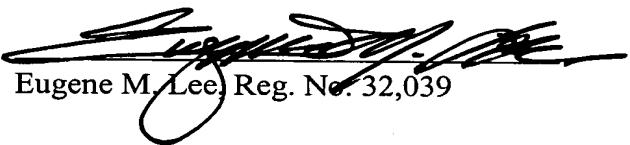
If the Examiner believes that additional discussions or information might advance the prosecution of the instant application, the Examiner is invited to contact the undersigned at the telephone number listed below to expedite resolution of any outstanding issues.

In view of the foregoing amendments and remarks, reconsideration of this application is earnestly solicited, and an early and favorable further action upon all the claims is hereby requested.

Respectfully submitted,

LEE & MORSE, P.C.

Date: November 3, 2005


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PETITION and
DEPOSIT ACCOUNT CHARGE AUTHORIZATION

This document and any concurrently filed papers are believed to be timely. Should any extension of the term be required, applicant hereby petitions the Director for such extension and requests that any applicable petition fee be charged to Deposit Account No. 50-1645.

If fee payment is enclosed, this amount is believed to be correct. However, the Director is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-1645.

Any additional fee(s) necessary to effect the proper and timely filing of the accompanying-papers may also be charged to Deposit Account No. 50-1645.